

GLOSSARY

BPL broadband over power lines, a technique for delivering high-speed Internet access over electrical power lines, with the ability to use house wiring to connect to computers.

Broadband, an elastic term describing high-bandwidth data connections. The wider the pipe, the more data can be moved at the same time and hence the higher the effective speed. The FCC defines any connection greater than 200 kilobytes per second in one direction as “broadband” and a connection with 200kbps in both directions as “advanced broadband,” but these figures are almost universally deemed to be out-of-date. A typical broadband connection today is closer to 512kbps upstream and 2Mbps down and moves upward from there. In a few years, that number is likely to be significantly higher. The term “broadband” is often used as shorthand for “high-speed Internet access.”

business user, a user in a business setting constituting a broad “middle class” in terms of bandwidth, reliability, and security needs. See also *home user*, *enterprise user*.

cable internet, a means of delivering broadband via coaxial cables, almost always simultaneously with cable television service.

Central Office, a switching station maintained by an ILEC where DSLAMs are generally deployed and from which the maximum range of DSL service (reckoned in “circuit feet,” distances over twisted-pair copper lines, not “as the crow flies”) can be determined.

CLEC, Competitive Local Exchange Carrier

DS3, a digital signal carrier with a rate of 44.736Mbps.

DSL, digital subscriber line. There are many subtypes of DSL (VDSL, HDSL, etc.) of varying speed, range, and technical characteristics.

DSLAM, digital subscriber access multiplexer.

enterprise user, the most demanding, industrial strength broadband consumer that usually represents large, technology-intensive organizations.

fixed wireless, a non-mobile method of delivering broadband service.

FTTH/FTTP, fiber to the premises, home, et al. a method of connectivity using fiber optic cabling.

home user, the class of broadband consumer with the least demanding broadband needs but which also faces total unavailability of service in many areas

ILEC, Incumbent Local Exchange Carrier

last mile, a term for the most remote and sparsely populated areas that are among the most challenging to provide with broadband, also known as the “local loop” for telecommunications services that makes the final connection to the premises.

municipal network, a broadband network owned and operated by a city or town, often by lease arrangement with an ILEC/CLEC. The right of Maine communities to establish these networks was reaffirmed by the State Legislature.

Narrowband, low-speed data connections (such as dialup Internet access, which tops out at 56kbps and is generally even lower in real-world applications).

OCx, Optical Carrier service provided over fiber optic cable

PON passive optical networking, a family of networking standards using a point-to-multi-point architecture for delivering last-mile connectivity without any active (i.e., powered) components in the distribution network. PON may provide hope for a last-mile solution because it involves fewer upgrades to the current infrastructure than competing technologies.

Remote Terminal, a remote switching station, or “sub-station” maintained by an ILEC where DSLAMs are generally deployed and from which the maximum range of DSL service (reckoned in “circuit feet,” distances over twisted-pair copper lines, not “as the crow flies”) can be determined.

symmetrical/asymmetrical, describes whether a data connection operates at the same speed or bandwidth when traveling upstream as it does when traveling downstream. A symmetrical connection is the same speed up or down; an asymmetrical connection is usually slower on the upload than on the download.

synchronous/asynchronous, describes whether a communications stream is completely continuous (synchronous), or can occur at any time and at irregular intervals (asynchronous). Most connections between computers, including those connected via broadband, are asynchronous.

take rate or penetration rate, a measure of the ratio of potential subscribers to whom service is available to those who actually sign up for that service.

triple play, the application of broadband that delivers voice, data, and video service over the same transport pipe.

WiFi wireless fidelity, a form of wireless networking in the IEEE 802.11x family of standards that is generally used for connectivity of wireless large-area networks (WLANs) inside buildings and small outdoor areas, but which has shown remarkable usefulness as a way of providing high-speed Internet over wider distances via towers,

high-gain antennae, and mesh-network technologies that significant exceeds what WiFi was originally intended to do.

WiMAX Wireless Interoperability for Microwave Access, a newly ratified form of fixed wireless broadband access in the IEEE 802.16x family of standards. The licensed version has a theoretical range and distance of up to 30 miles and 50Mbps or higher but is only available to the larger carriers. WiMAX is able to overcome some of the topographical issues faced by other forms of wireless broadband.